

**TREATMENT PROTOCOL: NON-TRAUMATIC CARDIAC ARREST (ADULT) \***

1. Basic airway
2. If arrest not witnessed by EMS:  
CPR for 2min at a compression rate of at least 100/min, minimize interruptions to chest compressions
3. Cardiac monitor: document rhythm and attach ECG strip
4. If asystole, confirm in more than one lead
5. If fine V-Fib is suspected, treat with V-Fib/Pulseless V-Tach

A 12-lead ECG shall be acquired on patients who complain of chest pain/discomfort of suspected cardiac etiology, non-traumatic post cardiac arrest patients with a return of spontaneous circulation (ROSC) and/or patients who the paramedics suspect are experiencing an acute cardiac event.

ASYSTOLE / PEA	V-FIB / PULSELESS V-TACH
<ol style="list-style-type: none"> <li>6. If confirmed PEA, consider causes ❶</li> <li>7. Venous access, if unable: place IO (if available)</li> <li>8. <b>Epinephrine</b> (1:10,000) ❹ 1mg IV or IO</li> <li>9. Consider advanced airway ❷, capnography</li> <li>10. If narrow complex and heart rate greater than 60bpm: <b>Normal saline</b> fluid challenge 10ml/kg IV or IO at 250ml increments</li> <li>11. CPR for 2min</li> <li>12. <b>CONTINUE SFTP or BASE CONTACT</b></li> <li>13. <b>Epinephrine</b> (1:10,000) 1mg IVP or IO May repeat every 3-5min</li> <li>14. If down time greater than 20min: <b>Sodium bicarbonate</b> 1mEq/kg IV push May repeat 0.5mEq/kg every 10-15min</li> <li>15. If resuscitative efforts are successful: Perform 12-lead ECG ❸</li> <li>16. If resuscitative efforts are unsuccessful and the patient does not meet ALL criteria for Termination of Resuscitation in Ref. No. 814, Section II.A., consult with the Base Physician ❺</li> </ol>	<ol style="list-style-type: none"> <li>6. Defibrillate ❸❹ Biphasic at 120-200J (typically) Monophasic at 360J</li> <li>7. CPR for 2min</li> <li>8. Venous access, if unable: place IO (if available)</li> <li>9. Check rhythm ❸, and if indicated: Defibrillate Biphasic at 200J, monophasic at 360J</li> <li>10. CPR for 2min</li> <li>11. <b>Epinephrine</b> (1:10,000) ❹ 1mg IVP or IO</li> <li>12. Consider advanced airway ❷, capnography</li> <li>13. Check rhythm, and if indicated: Defibrillate Biphasic at 200J, monophasic at 360J</li> <li>14. <b>CONTINUE SFTP or BASE CONTACT</b></li> <li>15. <b>Amiodarone</b> 300mg IV or IO</li> <li>16. CPR for 2min</li> <li>17. Check rhythm, and if indicated: Defibrillate Biphasic at 200J, monophasic at 360J</li> <li>18. <b>Epinephrine</b> (1:10,000) 1mg IVP or IO May repeat every 3-5min</li> <li>19. CPR for 2min</li> <li>20. Check rhythm, and if indicated: Defibrillate Biphasic at 200J, monophasic at 360J</li> <li>21. <b>Amiodarone</b> 150mg IV or IO Maximum total dose 450mg</li> <li>22. CPR for 2min</li> <li>23. Check rhythm, and if indicated: Defibrillate Biphasic at 200J, monophasic at 360J</li> <li>25. If resuscitative efforts are successful: Perform 12-lead ECG ❸</li> </ol>

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26. If resuscitative efforts are unsuccessful  
consult with the Base Physician ⑦

**SPECIAL CONSIDERATIONS**

- ① Consider causes of PEA: acidosis; cardiac tamponade; drug overdose; hyperkalemia; hypothermia; hypovolemia; hypoxia; massive MI; pulmonary embolus; or tension pneumothorax

Drugs to consider for specific suspected causes:

*If hypoglycemia is suspected:*

**DEXTROSE (50%)**

50ml IV or IO

*If narcotic overdose is suspected:*

**NARCAN (naloxone)**

0.8-2mg IV or IO

2mg IN or IM

*If dialysis patient:*

**CALCIUM CHLORIDE - BASE CONTACT REQUIRED**

1gm IV or IO

**SODIUM BICARBONATE – BASE CONTACT REQUIRED**

1mEq/kg IV or IO

*If tricyclic overdose suspected:*

**SODIUM BICARBONATE – BASE CONTACT REQUIRED**

1mEq/kg IV or IO

*If calcium channel blocker overdose suspected:*

**CALCIUM CHLORIDE – BASE CONTACT REQUIRED**

1gm IV or IO

- ② Attempt to limit interruptions in CPR to no more than 10sec with advanced airway. Should utilize end tidal CO<sub>2</sub> monitoring for advanced airway and monitoring ROSC.
- ③ Pulse check if a change in ECG rhythm, take no longer than 10sec to check for a pulse. If no pulse is detected within 10sec, resume chest compressions.
- ④ If hypothermia is suspected, administer only one dose of epinephrine and **no other medications** until the patient is re-warmed
- ⑤ Biphasic defibrillator settings may vary; refer to manufacturer's guidelines. If unknown, use 200J for biphasic, 360J for monophasic
- ⑥ If hypothermia is suspected, defibrillate only once until the patient is re-warmed
- ⑦ If hypothermia is suspected, resuscitation efforts should not be abandoned until the patient is re-warmed, or the base hospital orders termination of resuscitative efforts
- ⑧ Post cardiac arrest patients with ROSC, with or without a 12 lead ECG analysis equivalent to "Acute MI", shall be transported to the most accessible open SRC if ground transport is 30 minutes or less regardless of service agreement rules and/or considerations.